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IMAGERY  
ANALYSIS  
DIVISION

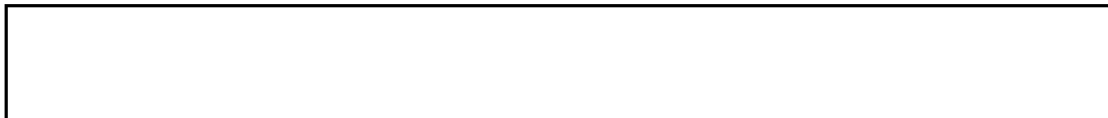
PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

CHINESE POWER PLANTS

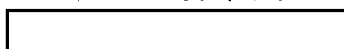
SHANTUNG PROVINCE

Declass Review by NIMA/DOD



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DATE JUNE 1966

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CIA IMAGERY ANALYSIS

CIA/PIR 65144

## CHINESE POWER PLANTS

### SHANTUNG PROVINCE

- (A) Chang-tien Thermal Power Plant (Nan-ting)
- (B) Chi-nan Thermal Power Plant (Huang-tai)
- (C) Ching-tao Thermal Power Plant (Ssu-fang)
- (D) Han-chuang Thermal Power Plant
- (E) Po-shan Thermal Power Plant
- (F) Wei-shan Hydro Power Plant

### REQUIREMENT

C-RR5-83,218

CIA/IAD PROJECT

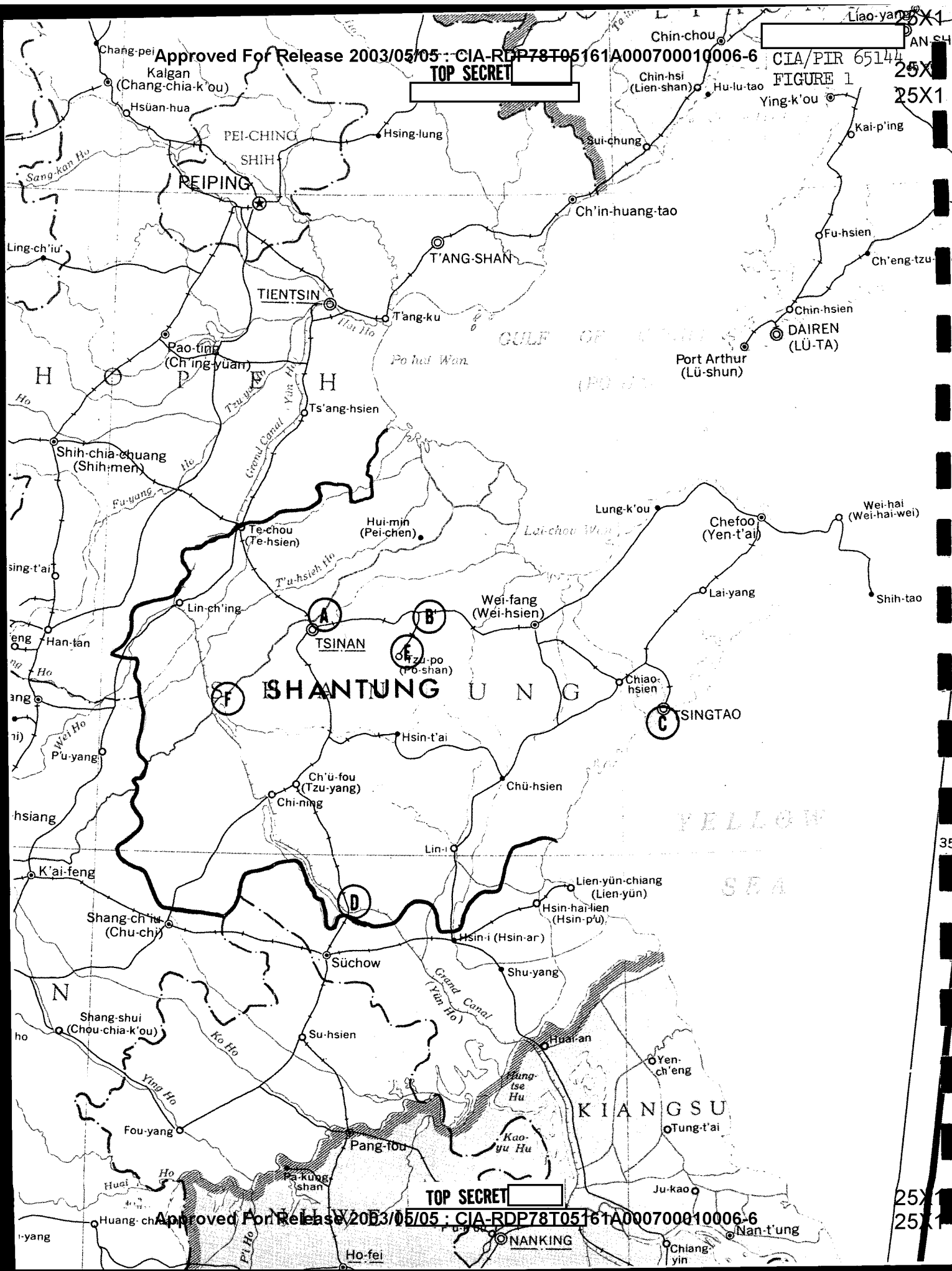
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FIGURE 1



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TABS





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## CHANG-TIEN THERMAL POWER PLANT (NAN-TING)

NPIC NUMBER - 4-B

25X1

The Chang-tien Thermal Power Plant (Nan-ting), also known as Nan-ting (Tzu-po), is located within the Chang-tien Alumina and Aluminum Plant at coordinates 36 45 40N - 118 03 10E. The plant is rail-served, coal-operated and includes a sub-station, one masonry or reinforced concrete cooling tower, several spray ponds, coal handling and treatment facilities and miscellaneous support/storage buildings.

Because of consistently poor quality photography, it is impossible to accurately assess the number of boiler and generator units; however, there appears to be four and possibly five dust-catcher units. The eastern end of the boilerhouse is in an arrested state of construction and, when completed, could accommodate one additional boiler unit. The generator hall appears completed but gives no indications as to the number of generator units contained.

No new construction occurred during the [ ] period.

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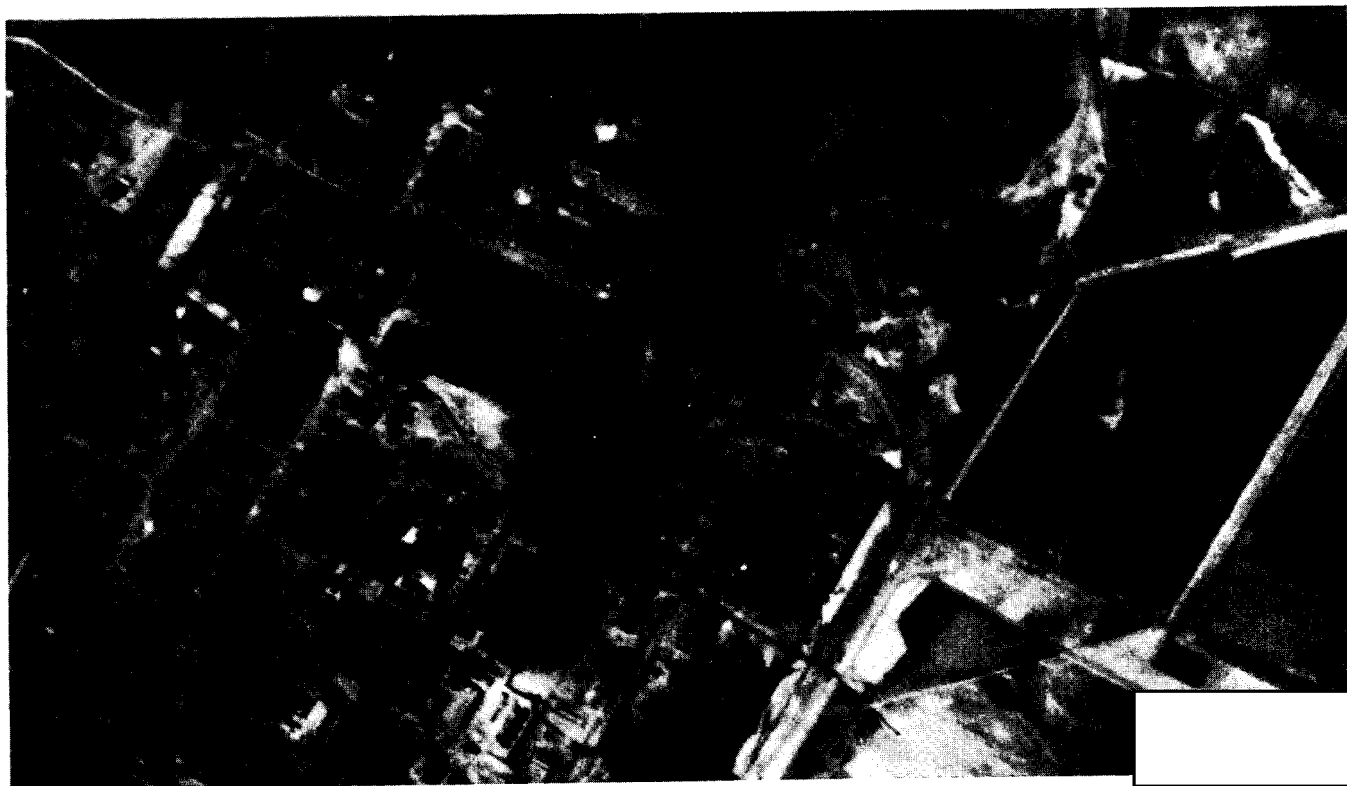
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FIGURE 2

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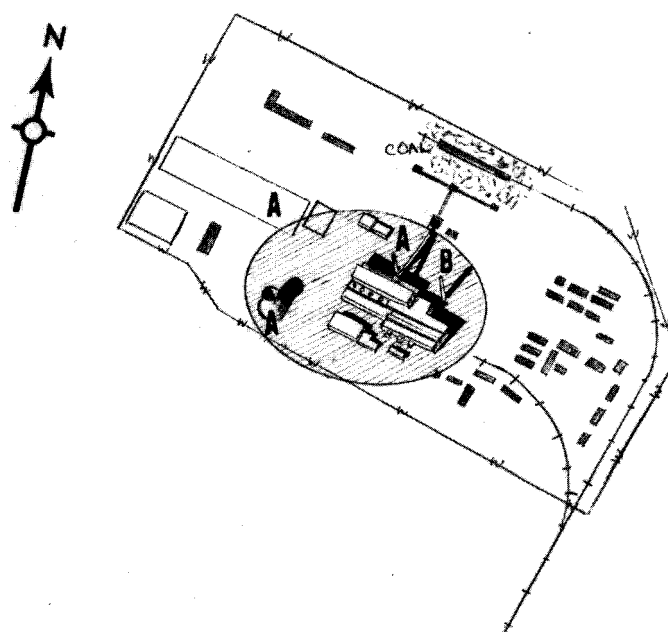
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CHANG-TIEN THERMAL POWER PLANT (NAN-TING)



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CHANG-TIEN THERMAL POWER PLANT (NAN-TING)

| PHOTO DATA | CONSTRUCTION ACTIVITY  | LEVEL OF PRODUCTION  |
|------------|--|--|
|            | Eastern end of boilerhouse is unfinished; however, no signs of current construction are evident. | Light smoke from stack A. Possible vapor from cooling tower A. Spray ponds appear to be in operation.                                    |
|            | No apparent change.  | Heavy smoke from stack A. Light vapor from cooling tower A. Spray ponds appear activated.  |
|            | No apparent change.  | Light smoke from stack A. Light vapor from cooling tower A. Spray ponds appear activated.  |
|            | No apparent change.  | Heavy smoke from stack A. Moderate smoke from stack B. Heavy vapor from cooling tower A. Spray pond A has seven sprinklers in operation. |
|            | No apparent change.  | Moderate smoke from stack A. Light smoke from stack B. Moderate vapor from cooling tower A. Spray pond A is in operation.                |
|            | No apparent change.  | Heavy clouds cover the powerhouse and preclude analysis. All spray ponds in full operation.  |

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CHANG-TIEN THERMAL POWER PLANT (NAN-TING)

| PHOTO DATA | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION  |
|------------|-----------------------|--|
|            | No apparent change.   | Moderate smoke from stacks A and B. Light vapor from cooling tower A. Spray ponds are activated. |

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**B**

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[ ] CIA/PIR 65144

25X1 CHI-NAN THERMAL POWER PLANT (HUANG-TAI)

[ ] NPIC NUMBER - 69-H

The Chi-nan Thermal Power Plant is located approximately 3.0 nm northeast of Chi-nan at coordinates 36 42 26N - 117 05 14E. The facility is rail-served, coal-operated, and includes a sub-station with four large transformers, six possible small transformers, control house, two natural draft cooling towers, coal unloading building, usual coal conveyor and processing facilities, pumping facility, spray pond, administration building, and numerous support/storage buildings.

The boilerhouse is equipped with three dust-catcher units and three sets of ducts, indicative of three boiler units, that connect to free-standing masonry stack A. Construction on a fourth boiler unit was abandoned prior to 1963.

The generator hall has four sets of power cables leading to four transformers in the sub-station which is indicative of four generator units.

New construction during the specified period from 1963 through 1965 was limited to the addition of a cooling tower.

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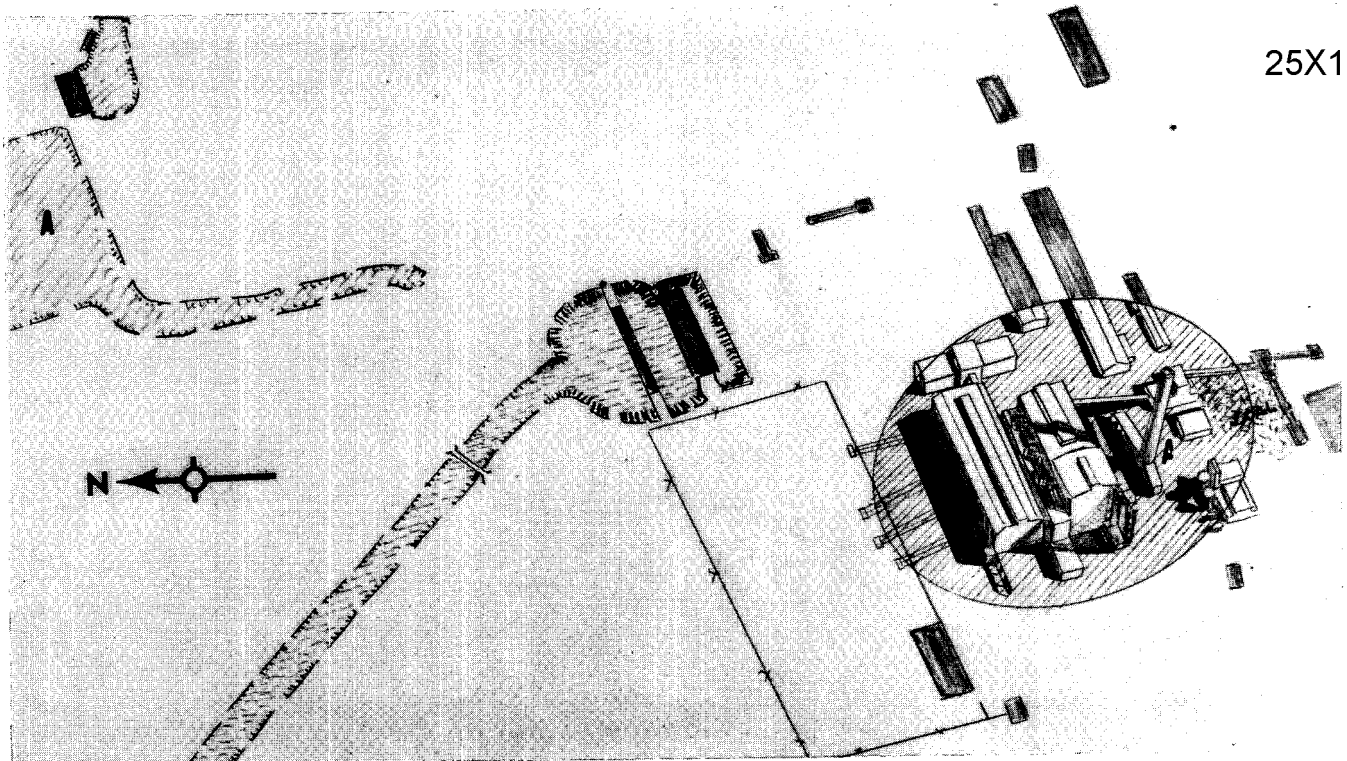
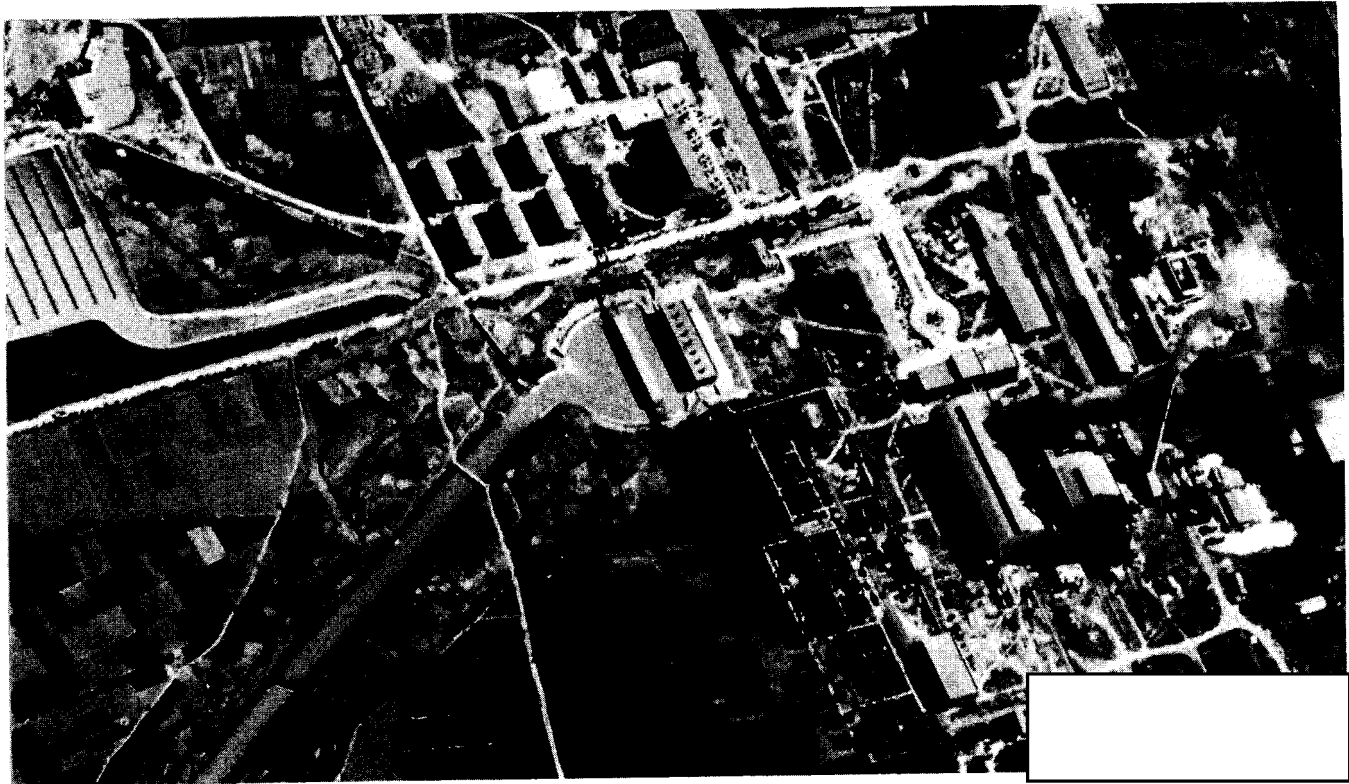
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FIGURE 3

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CHI-NAN THERMAL POWER PLANT (HUANG-TAI)



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CHI-NAN THERMAL POWER PLANT (HUANG-TAI)

| PHOTO DATA | CONSTRUCTION ACTIVITY   | LEVEL OF PRODUCTION   |
|------------|---|---|
|            | None  | Light smoke from stack A.<br>Possible light vapor from cooling tower A. |
|            | None  | No smoke observed. Light vapor from cooling tower A.                    |
|            | Cooling tower B is near completion. Coal unloading building is being roofed.                                  | Light smoke from stack A.   |
|            | Cooling tower B appears complete. No change to powerhouse. Coal unloading building has been partially roofed. | Heavy smoke from stack A.   |
|            | No apparent change.   | Light smoke from stack A.   |

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## CHI-NAN THERMAL POWER PLANT (HUANG-TAI)

| PHOTO DATA | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION  |
|------------|-----------------------|--|
|            | No apparent change.   | Light smoke from stack A.<br>Light vapor from cooling towers A and B.          |
|            | No apparent change.   | Heavy smoke from stack A.<br>Possible light vapor from cooling towers A and B. |
|            | No apparent change.   | Heavy smoke from stack A.<br>Heavy vapor from cooling towers A and B.          |
|            | No apparent change.   | Moderate smoke from stack A.   |
|            | No apparent change.   | Moderate smoke from stack A.<br>Light vapor from cooling towers A and B.       |

TOP SECRET

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## CHING-TAO THERMAL POWER PLANT (SSU-FANG)

NPIC NUMBER - 13-M

25X1

The Ching-tao Thermal Power Plant is located 0.2 nm northwest of the Ching-tao Locomotive and Rolling Stock Plant at coordinates 36 06 43N - 120 19 51E. The facility is rail-served, coal-operated and includes a coal yard equipped with two cranes, an elaborate system of cooling/settling ponds, two control houses and several other smaller control facilities.

The boilerhouse has been enlarged several times and presently consists of three main sections probably equipped with seven or eight boiler units. The older center section is served by two free-standing masonry stacks and contains two and possibly three boiler units. The western section has three metal stacks on the roof as well as three vents, indicating three units. The eastern section has expanded recently and presently contains housing for two boiler units, each connected by four ducts to masonry stack F; this section appears designed to eventually accommodate four boiler units and now has one and possibly two dust-catcher units installed in the finished sections.

The generator hall consists of three main sections, and could accommodate at least seven generators. Two sets of three-cable power leads were observed between the new, expanding eastern section and a small building to the south which is probably used to house two transformers. No cables were evident at the older generator hall; however, a control house is integrated with the older generator hall thus eliminating such visible connections.

Construction from 1962 through 1965 consisted of the roofing of a second boilerhouse unit at the expanding eastern end of the plant.

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FIGURE 4

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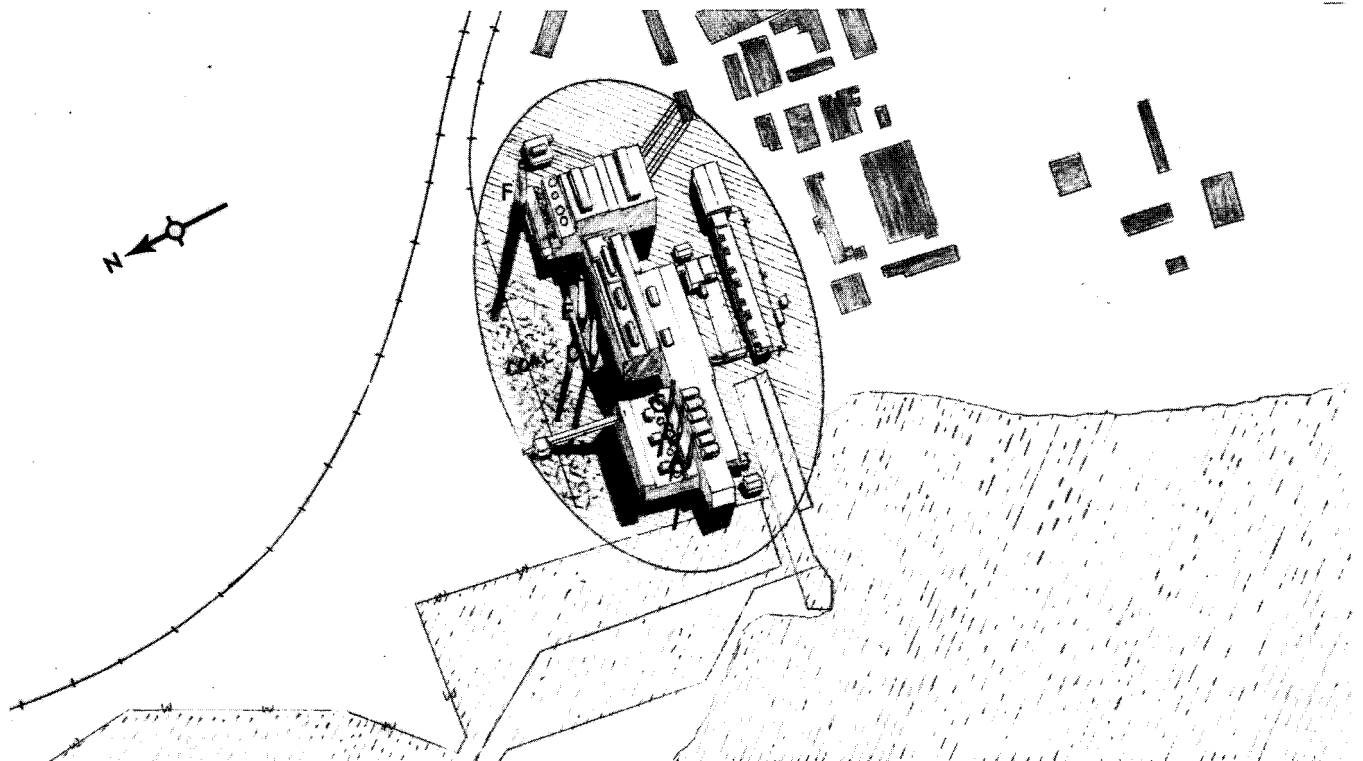
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CHING-TAO THERMAL POWER PLANT (SSU-FANG)



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CHING-TAO THERMAL POWER PLANT (SSU-FANG)

| PHOTO DATA | CONSTRUCTION ACTIVITY  | LEVEL OF PRODUCTION   |
|------------|--|---|
|            | <p>Construction is occurring on the boiler-generator hall section at the eastern end of the plant. One boiler section (with dust-catcher) and two generator sections are complete. Sides for a second boiler section are in place. Two completed flue systems connect the new boiler units with a masonry stack (F).</p> <p>The roof of the new boiler section is in place. A dust-catcher unit may also be present on the new section.</p> <p>None apparent</p> <p>None apparent</p> <p>None apparent</p> | <p>Heavy smoke from stacks A, B, and C. Light smoke from stacks D and E.</p> <p>Light smoke from stacks A, B, C and E.</p> <p>Moderate smoke from stacks A and B. Light smoke from stack F.</p> <p>Heavy smoke from stacks A and B. Light smoke from stack F.</p> <p>Heavy smoke over the plant precluded analysis; however, there was heavy smoke from stack B or C and light smoke from stacks E and F.</p> |

TOP SECRET

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CHING-TAO THERMAL POWER PLANT (SSU-FANG)

| PHOTO DATA | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION  |
|------------|-----------------------|--|
|            | None apparent         | Light smoke from stacks A and C.   |
|            | None apparent         | Light smoke from stacks A, B, and F.                                     |
|            | None apparent         | Moderate smoke from stacks A, B, and C. Light smoke from stacks D and F. |
|            | None apparent         | Light smoke from stacks A and B.   |

TOP SECRET

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## HAN CHUANG THERMAL POWER PLANT

NPIC NUMBER - 38-A

The Han-chuang Thermal Power Plant is located east of Wei-shan Hu (Lake) at coordinates 34 36 19N-117 21 45E. The facility is rail-served, coal-operated and includes a sub-station with five and possibly six transformers, two spray ponds, a control house, coal processing and conveying facilities and miscellaneous support/storage facilities.

The boilerhouse consists of two sections with a probable total of seven boiler units. The larger section is equipped with only two visible dust-catchers, but is linked to stack A by five widely spaced flues; this is suggestive of five boiler units. The smaller boiler section has two visible dust-catcher units, is connected to stack B by two flues and probably contains two units.

The generator hall is also of two distinct designs and is apparently equipped with six operable generator units. The larger section is linked to two transformers and the control house by four sets of three-cable power leads; the smaller section is connected to two transformers by two sets of three-cable power leads.

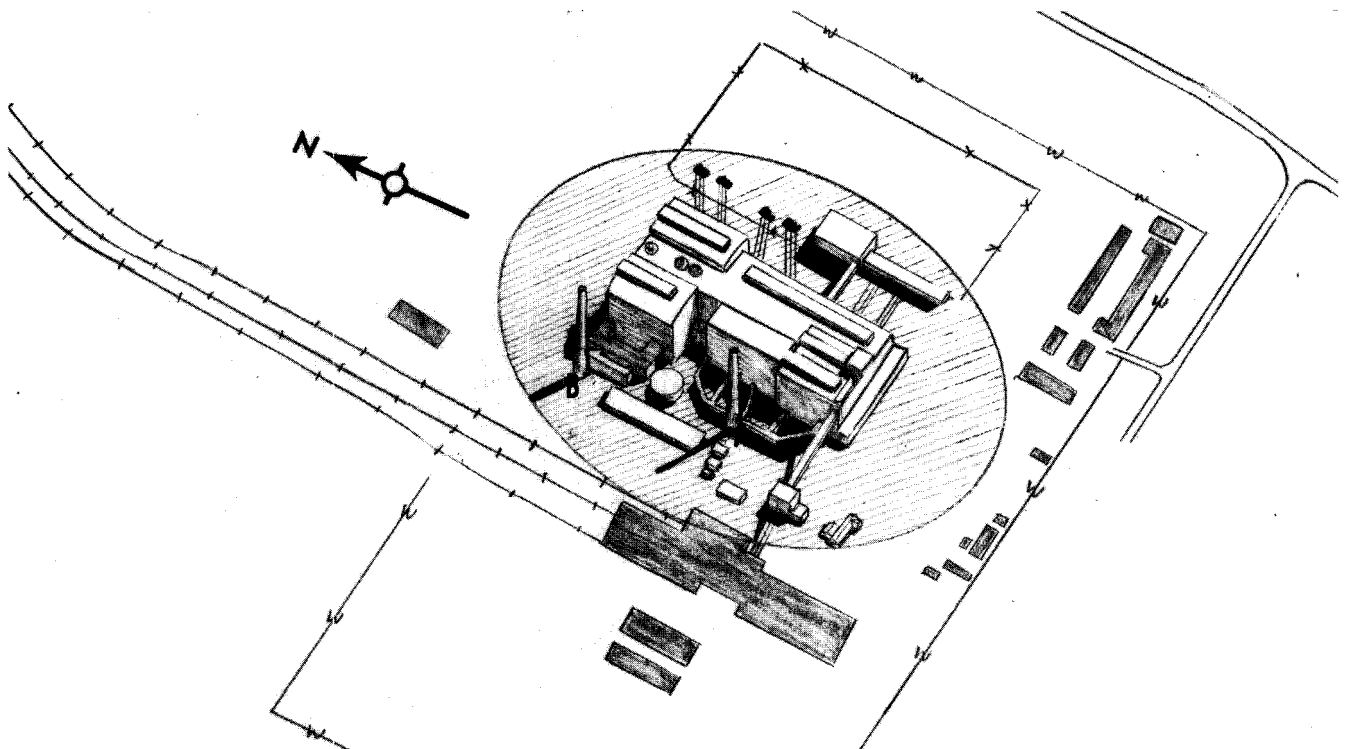
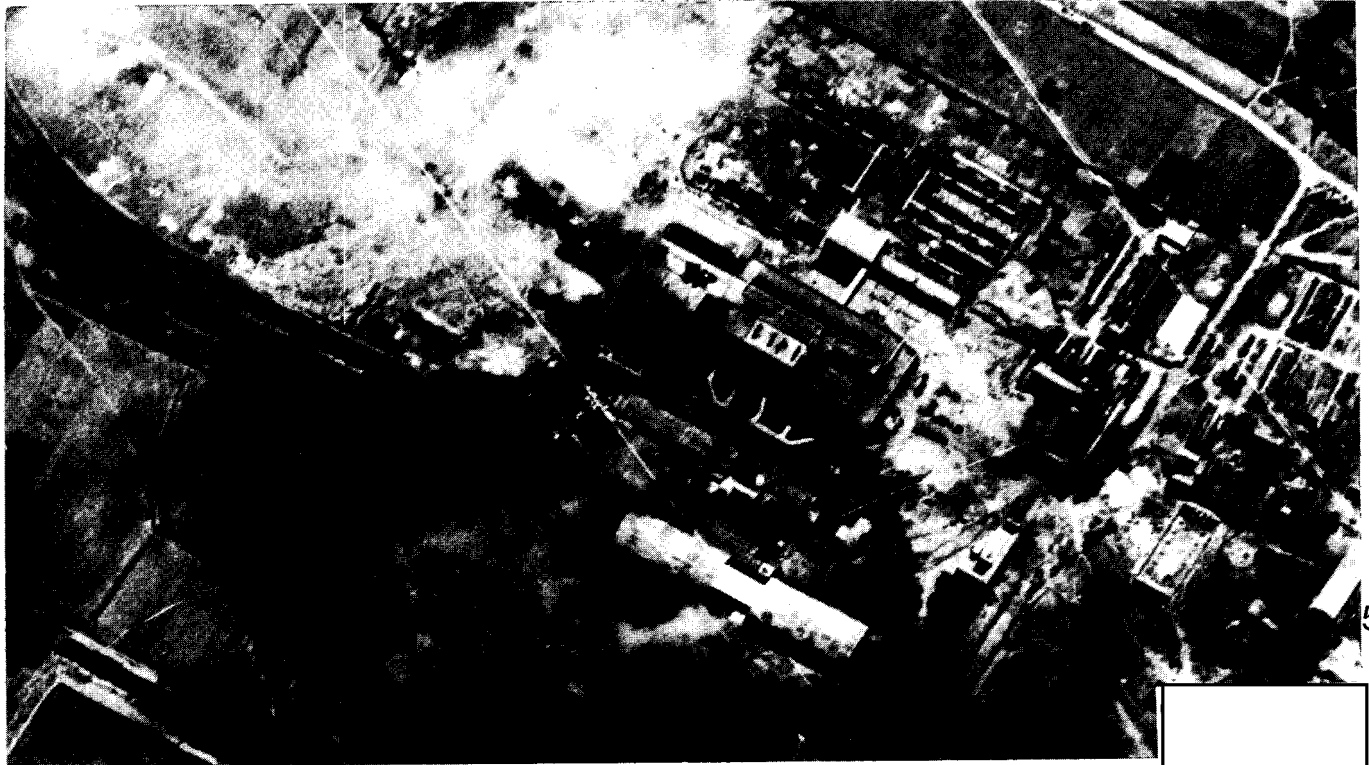
No new construction occurred from 1963 through 1965.



TOP SECRET

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FIGURE 5 25X1

HAN-CHUANG THERMAL POWER PLANT



TOP SECRET

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HAN-CHUANG THERMAL POWER PLANT

| PHOTO DATA | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION  |
|------------|-----------------------|--|
|            | None                  | Moderate smoke from stack A.<br>Moderate smoke from stack B.       |
|            | None                  | Heavy smoke from stack A.<br>Cooling pond in operation.            |
|            | None                  | Possible light smoke from stack A.<br>Moderate smoke from stack B. |
|            | None                  | Heavy smoke from stack A.  |
|            | None                  | No vapor/smoke visible.  |
|            | None                  | Light smoke from stack B.  |

TOP SECRET

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HAN-CHUANG THERMAL POWER PLANT

| PHOTO DATA  | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION  |
|---|-----------------------|--|
|  | None                  | Moderate smoke from stack B.<br>Light smoke from stack A.<br>Cooling pond A is active. |

TOP SECRET

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## PO-SHAN THERMAL POWER PLANT

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Po-shan Thermal Power Plant is located in the southern sector of Po-shan on the eastern bank of the Hsiao-fu Ho (River) at coordinates 36 28 35N - 117 50 50E. The facility is coal-operated, rail-served and includes a sub-station containing one large transformer, five medium transformers, and five probable small transformers. The facility also contains one large water reservoir, four small spray ponds, coal conveying and processing system, an ash disposal area located to the northeast of the plant, control house, and several support/storage buildings.

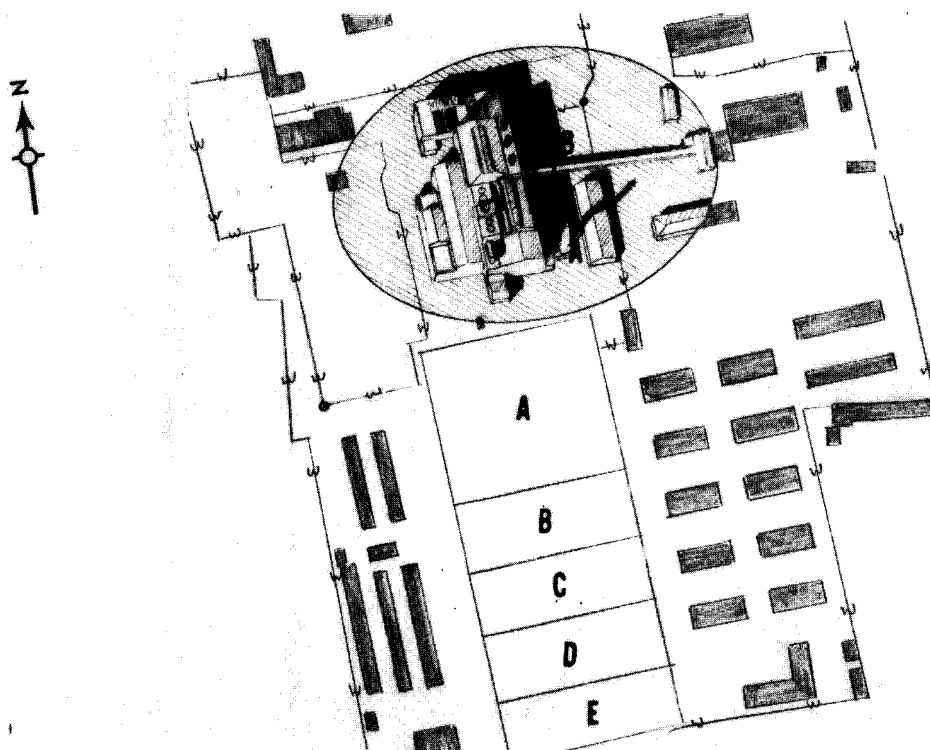
The powerhouse is of three distinct designs, apparently having been enlarged several times. The northern most boiler section contains three small dust catcher units which is indicative of three boiler units. The center section is equipped with two dust catcher units and is serviced by masonry stack B; the southern most section has no apparent dust catcher unit, but the configuration suggests the presence of one large boiler unit which is serviced by masonry stack B. The generator hall is compartmented into three sections, indicating facilities for three generator units; however, only two sets of three-cable power leads are visible leading from the generator hall to the sub-station.

There has been no construction during the specified period from 1963 through 1965.

TOP SECRET

FIGURE 6

PO-SHAN THERMAL POWER PLANT



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## PO-SHAN THERMAL POWER PLANT

25X1

PHOTO DATA

CONSTRUCTION ACTIVITY

LEVEL OF PRODUCTION

None

Appears to be moderate smoke from stack B. Clouds and haze preclude further analysis.

None

Light smoke from stack B. Water reservoir A and spray pond B are filled.

None

Light smoke from stack B. Water reservoir A is filled.

None

Very light smoke from stack B. Water reservoir A and all spray ponds appear empty.

None

Possible light smoke from stack A. Water reservoir A is filled.

None

Very light smoke from either stack A or B. Water reservoir A and spray pond B are filled.

-14-

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PO-SHAN THERMAL POWER PLANT

| PHOTO DATA | CONSTRUCTION ACTIVITY | LEVEL OF PRODUCTION                                       |
|------------|-----------------------|---|
|            | None                  | Light smoke from stack B.<br>Water reservoir A is filled. |

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WEI-SHAN HYDRO POWER PLANT

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An analysis of [ ] photographic missions dating from [ ]  
[ ] failed to locate the Wei-shan Hydro Power Plant, reportedly  
located at coordinates 36 10N - 116 15E. The area within a radius of  
approximately 50 nm of the reported location revealed only several low  
earthen dams of a type used to impound water for irrigation. The search  
was not as complete as desired because of continuously heavy cloud cover  
on all coverage [ ] The area in the immediate vicinity of  
the given location of the facility was, however, seen on several [ ]  
missions, but revealed no such installation.

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